

Our Reference: UMJ-101-A (UM-1476)

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Peter X. Ma  
Serial Number: 09/255,963  
Filing Date: February 23, 1999  
Examiner/Art Group Unit: Sumesh Kaushal, Ph.D./1633  
Title: THREE-DIMENSIONAL  
HYDROGEL/CELL SYSTEM

## COMMUNICATION

Assistant Commissioner of Patents  
Washington, D.C. 20231

Sir:

If any charges or fees must be paid in connection with the following communication, they may be paid out of our Deposit Account No. 25-0115.

The Office Action dated April 10, 2001 has been received and carefully reviewed. Please revise the above-identified patent application as indicated below. Entry of this Communication is respectfully requested.

In the Claims:

C<sup>1</sup>

1 1. (Three Times Amended) A method comprising the steps of:  
2 mixing an alginate salt and a source of calcium ions to provide a  
3 mixture;  
4 adding a calcium releasing compound to the mixture to provide a  
5 three-dimensional crosslinked hydrogel system; and  
6 selectively controlling shrinking, swelling or maintaining of the  
7 hydrogel system by varying a calcium ion concentration of a medium into which  
8 the hydrogel system is introduced.

C<sup>2</sup>

1 11. (Three Times Amended) A method for tissue engineering *in*  
2 *vitro*, the method comprising the steps of: